# SEQ SEARCH SUMMARY

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

May 1, 2004, 09:08:51; Search time 4393 Seconds Run on:

(without alignments)

10379.438 Million cell updates/sec

Title:

US-09-903-771-1

Perfect score:

1052

Sequence:

1 tgcagcattgccggtggagc.....cctcttcgggccagtctgaa 1052

Scoring table: (IDENTITY NUC

Gapop 10.0 , Gapext 1.0

Searched:

3470272 seqs, 21671516995 residues

Total number of hits satisfying chosen parameters:

6940544

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

GenEmbl:\*

1: gb ba:\*

2: gb htg:\*

3: gb in:\* 4:

gb om:\* 5: qb ov:\*

6: gb pat:\*

7: gb ph:\*

8: gb pl:\*

9: gb pr:\*

10: gb ro:\*

11: gb\_sts:\*

12: qb sy:\*

13: gb un:\*

14: gb vi:\*

15: em ba:\*

16: em fun:\*

17: em\_hum:\*

18: em in:\*

19: em mu:\*

20: em om:\*

21: em or:\*

22: em ov:\*

23: em pat:\*

24: em\_ph:\*

25: em\_p1:\*

26: em\_ro:\*

27: em sts:\*

```
28: em un:*
29: em_vi:*
30: em_htg_hum:*
31: em_htg_inv:*
32: em htg other:*
33: em htg mus:*
34: em_htg_pln:*
35: em_htg_rod:*
36: em_htg_mam:*
37: em_htg_vrt:*
38: em_sy:*
39: em_htgo_hum:*
40: em_htgo_mus:*
41: em_htgo_other:*
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

						SUMMARIES	ppl.
			<u></u> ક			A	P
	ult		Query			<i>71</i> 1	
	No.	Score	Match	Length	DB	ID /	Description
	1	1052	100.0	1052	6	AX377471 ωο 02/12291	AX377471 Sequence
С	2	1052	100.0	309400	6	AX127153 EP 1108790	AX127153 Sequence
С	3	1052	100.0	325651	1	AP0052831 GenBank	AP005283 Corynebac
	4	759	72.1	759	6	AX065953 WO 01/00842	AX065953 Sequence - fragme
	5	636	60.5	636	6	AX123320 EP	AX123320 Sequence
	6	636	60.5	636	6	BD165437	BD165437 Novel pol
С	7	464	44.1	302070	1	AP005223	AP005223 Corynebac
	8	404	38.4	1902	6	AX397915	AX397915 Sequence
	9	404	38.4	1902	6	AX398211	AX398211 Sequence
C	10	402.8	38.3	349659	1	BX248360	BX248360 Corynebac
	11	353	33.6	353	6	AX377473	AX377473 Sequence
	12	225	21.4	339650	1	SCO939108	AL939108 Streptomy
	13	202.2	19.2	299050	1	SCO939119	AL939119 Streptomy
	14	192.6	18.3	2760	1	SRSENRS	Y14336 Streptomyce
	15	180.8	17.2	753	6	AX065957	AX065957 Sequence
	16	180.8	17.2	760	6	AX763127	AX763127 Sequence
	17	180.8	17.2	760	6	AX771859	AX771859 Sequence
	18	180.8	17.2	1032	6	AX376724	AX376724 Sequence
С	19	180.8		337200	1	AP005280	AP005280 Corynebac
С	20	180.8		349980	6	AX127149	AX127149 Sequence
C	21	180.8		349980	6	AX127150	AX127150 Sequence
	22	178.4	17.0	630	6	AX122284	AX122284 Sequence
	23	178.4	17.0	630	6	BD164401	BD164401 Novel pol
	24	171.2		349659	1	BX248360	BX248360 Corynebac
	25	164.8	15.7	2021	1	AF161327	AF161327 Corynebac
	26	142	13.5	1498	6	AX763115	AX763115 Sequence
	27	138.6		300100	1	SCO939123	AL939123 Streptomy
	28	112	10.6	1311	6	AX123323	AX123323 Sequence
	29	112	10.6	1311	6	BD165440	BD165440 Novel pol
С	30	105.6		298450	1	SCO939107	AL939107 Streptomy
	31	100.6	9.6	10542	1	AE001951	AE001951 Deinococc
C	32	100	9.5	456	6	AX123319	AX123319 Sequence
С	33	100	9.5	456	6	BD165436	BD165436 Novel pol

OM nucleic - nucleic search, using sw model

Run on: May 1, 2004, 09:03:35; Search time 491 Seconds

(without alignments)

9102.046 Million cell updates/sec

Title: US-09-903-771-1

Perfect score: 1052

Sequence: 1 tgcagcattgccggtggagc.....cctcttcgggccagtctgaa 1052

Scoring table: IDENTITY NUC

Gapop 10.0 , Gapext 1.0

Searched: 3373863 seqs, 2124099041 residues

Total number of hits satisfying chosen parameters: 6747726

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database: N Geneseq 29Jan04:\*

1: geneseqn1980s:\*

2: geneseqn1990s:\*

3: geneseqn2000s:\*

4: geneseqn2001as:\*

5: geneseqn2001bs:\*

6: geneseqn2002s:\*

7: geneseqn2003as:\*

8: geneseqn2003bs:\*

9: geneseqn2003cs:\*

10: geneseqn2004s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result No. Sc	Query ore Match	Length	DB	ID		Descript	ion
c 2 1 3 4 5 6 7 18	052 100.0 052 100.0 759 72.1 636 60.5 404 38.4 353 33.6 0.8 17.2	309400 759 636 1902 353	6 5 4 5 6 6 4	ABA91930 AAH68534 AAF71286 AAH68201 ABL40476 ABA91931 AAF71288 ADD13670	ωο 02/12291 Ερ (108790 ωο 01/07842	Aah68534 Aaf71286 Aah68201 Ab140476 Aba91931 Aaf71288	Corynebac C glutami Corynebac C glutami C. glutam Corynebac Corynebac C. glutam

OM nucleic - nucleic search, using sw model

Run on: May 1, 2004, 09:48:15; Search time 97 Seconds

(without alignments)

6018.643 Million cell updates/sec

Title: US-09-903-771-1

Perfect score: 1052

Sequence: 1 tgcagcattgccggtggagc.....cctcttcgggccagtctgaa 1052

Scoring table: IDENTITY NUC

Gapop 10.0 , Gapext 1.0

Searched: 682709 seqs, 277475446 residues

Total number of hits satisfying chosen parameters: 1365418

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Issued Patents NA:\*

1: /cgn2\_6/ptodata/2/ina/5A\_COMB.seq:\*

2: /cgn2\_6/ptodata/2/ina/5B\_COMB.seq:\*

3: /cgn2\_6/ptodata/2/ina/6A COMB.seq:\*

4: /cgn2\_6/ptodata/2/ina/6B\_COMB.seq:\*

5: /cgn2\_6/ptodata/2/ina/PCTUS COMB.seq:\*

6: /cgn2\_6/ptodata/2/ina/backfiles1.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	ult No.	Score	% Query Match	Length	DB	ID	Description	ı
	1 2 3 4 5	180.8 84.2 79.2 71.8 71.8	17.2 8.0 7.5 6.8 6.8 6.1	1032 323 2588 5045 5045	4 4 2 3 3	US-09-897-537A-1 US-09-897-537A-3 US-08-796-414B-6 US-09-390-721-1 US-09-390-721-3	Sequence 1 Sequence 3 Sequence 6 Sequence 1 Sequence 3	Appli Appli Appli Appli
С	7 8 9 10 11	64 64 63 63 62.4 62.4	6.1 6.1 6.0 6.0 5.9	810 879 1632 2766 2874 1515 2232	4 4 4 4 4 4	US-09-252-991A-3647 US-09-252-991A-3602 US-09-252-991A-3859 US-09-252-991A-3756 US-09-252-991A-3837 US-09-252-991A-11671 US-09-252-991A-11756	Sequence 3 Sequence 3 Sequence 3 Sequence 3 Sequence 1 Sequence 1	602, Ap 859, Ap 756, Ap 837, Ap 1671, A

OM nucleic - nucleic search, using sw model

May 1, 2004, 12:38:05; Search time 507 Seconds Run on:

(without alignments)

9385.965 Million cell updates/sec

Title: US-09-903-771-1

Perfect score: 1052

Sequence: 1 tgcagcattgccggtggagc.....cctcttcgggccagtctgaa 1052

Scoring table: IDENTITY NUC

Gapop 10.0 , Gapext 1.0

2936184 seqs, 2261732022 residues Searched:

Total number of hits satisfying chosen parameters: 5872368

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published Applications NA:\*

/cgn2 6/ptodata/1/pubpna/US07 PUBCOMB.seq:\* 1:

/cgn2\_6/ptodata/1/pubpna/PCT NEW PUB.seq:\*

/cgn2\_6/ptodata/1/pubpna/US06 NEW PUB.seq:\* 3:

4: /cgn2\_6/ptodata/1/pubpna/US06\_PUBCOMB.seg: \*

/cgn2 6/ptodata/1/pubpna/US07 NEW PUB.seq:\*

/cgn2\_6/ptodata/1/pubpna/PCTUS PUBCOMB.seg:\*

7: /cgn2\_6/ptodata/1/pubpna/US08 NEW PUB.seg: \*

8: /cgn2\_6/ptodata/1/pubpna/US08\_PUBCOMB.seq:\*

9: /cgn2\_6/ptodata/1/pubpna/US09A PUBCOMB.seq:\*

10: /cgn2\_6/ptodata/1/pubpna/US09B PUBCOMB.seg:\*

11: /cgn2 6/ptodata/1/pubpna/US09C PUBCOMB.seq:\*

12: /cgn2 6/ptodata/1/pubpna/US09 NEW PUB.seg:\*

13: /cgn2\_6/ptodata/1/pubpna/US09\_NEW\_PUB.seq2:\*

14: /cgn2\_6/ptodata/1/pubpna/US10A PUBCOMB.seg:\*

15: /cgn2 6/ptodata/1/pubpna/US10B PUBCOMB.seq:\*

16:

/cgn2 6/ptodata/1/pubpna/US10C PUBCOMB.seq:\* 17:

/cgn2\_6/ptodata/1/pubpna/US10\_NEW PUB.seq:\* 18: /cgn2\_6/ptodata/1/pubpna/US60 NEW PUB.seq: \*

/cgn2 6/ptodata/1/pubpna/US60 PUBCOMB.seg:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

							101a7605
Res	sult		% Query			SUMMARIES	Nakagar 2002 lota 7605  Nakagar 2002 lota 7605  Description
	No.	Score		Length	DB 	ID	Description
	1	1052	100.0	1052	13	US-09-903-771-1	Sequence 322789,
С	2	1052		3309400	9	US-09-738-626-1	Sequence 1, Appli
	3	636	60.5	636	9	US-09-738-626-3236	Sequence 3236, Ap
	4	404	38.4	1902	9	US-09-824-551-1	Sequence 1, Appli
	5	353	33.6	353	13	US-09-903-771-3	Sequence 3, Appli
	6 7	180.8	17.2	1032	10	US-09-867-537A-1	Sequence 1, Appli
	8	178.4	17.0	630	9	US-09-738-626-2200	Sequence 2200, Ap
~	9	112 100	10.6	1311	9	US-09-738-626-3239	Sequence 3239, Ap
C C	10	96.6	9.5	456 9025608	9 1!	US-09-738-626-3235	Sequence 3235, Ap
C	11	89.8	8.5	663	15		Sequence 1, Appli
С	12	87	8.3	88421	9	US-10-156-761-1453 US-09-976-059-1	Sequence 1453, Ap
C	13	85.2		9025608	15		Sequence 1, Appli
	14	84.2	8.0	323	10	US-09-867-537A-3	Sequence 1, Appli
	15	84.2	8.0	639	15	US-10-156-761-2864	Sequence 3, Appli
	16	80.8	7.7	669	15	US-10-156-761-1976	Sequence 2864, Ap Sequence 1976, Ap
	17	79	7.5	681	15	US-10-156-761-5587	Sequence 5587, Ap
	18	76.6	7.3	639	15	US-10-156-761-6454	Sequence 6454, Ap
	19	76.2	7.2	672	15	US-10-156-761-4519	Sequence 4519, Ap
	20	75.2	7.1	38734	10	US-09-373-658-30	Sequence 30, Appl
	21	75.2	7.1	38734	11	US-09-989-687-30	Sequence 30, Appl
	22	73.8	7.0	660	15	US-10-156-761-7049	Sequence 7049, Ap
	23	73.2	7.0	717	15	US-10-156-761-5606	Sequence 5606, Ap
	24	72.6	6.9	669	15	US-10-156-761-6649	Sequence 6649, Ap
	25	72.6	6.9	681	16	US-10-402-842 <b>-</b> 52	Sequence 52, Appl
C	26	72.6	6.9	47988	16	US-10-402-842-1	Sequence 1, Appli
	27	71.8	6.8	705	15	US-10-156-761-919	Sequence 919, App
	28	69.4	6.6	669	15	US-10-156-761-7370	Sequence 7370, Ap
	29	68.4	6.5	669	15	US-10 <b>-</b> 156-761-4665	Sequence 4665, Ap
	30	65.2	6.2	672	15	US-10-156-761-4521	Sequence 4521, Ap
	31	64.8	6.2	612	15	US-10-156-761-3119	Sequence 3119, Ap
	32	64.6	6.1	657	15	US-10-156-761-3617	Sequence 3617, Ap
	33	64.4	6.1	609	15	US-10-156-761-4982	Sequence 4982, Ap
	34	64.4	6.1	657	15	US-10 <b>-</b> 156-761-4359	Sequence 4359, Ap
	35	62.8	6.0	632	9	US-09-974-300-4335	Sequence 4335, Ap
	36	62.2	5.9	681	15	US-10-156-761-2425	Sequence 2425, Ap
	37	60.2	5.7	744	15	US-10-156-761-5052	Sequence 5052, Ap
	38	60.2	5.7	2061	9	US-09-738-626-2627	Sequence 2627, Ap
	39	60.2		3309400	9	US-09-738-626-1	Sequence 1, Appli
	40	58.2	5.5	660	15	US-10-156-761-2217	Sequence 2217, Ap
	41 42	55.6	5.3	630	15	US-10-156-761-5845	Sequence 5845, Ap
	43	53.8 53.6	5.1	3012	15	US-10-156-761-2716	Sequence 2716, Ap
	4.5	53.6 52	5.1	681 726	15	US-10-156-761-6016	Sequence 6016, Ap
	45	52 52	4.9 4.9	726 726	13	US-10-282-122A-7320	
	4 J	32	4.9	726	13	US-10-389-647-221	Sequence 221, App

OM nucleic - nucleic search, using sw model

Run on: May 1, 2004, 11:08:40 ; Search time 3219 Seconds

(without alignments)

9759.246 Million cell updates/sec

Title: US-09-903-771-1

Perfect score: 1052

Sequence: 1 tgcagcattgccggtggagc.....cctcttcgggccagtctgaa 1052

Scoring table: IDENTITY NUC

Gapop 10.0 , Gapext 1.0

Searched: 27513289 seqs, 14931090276 residues

Total number of hits satisfying chosen parameters: 55026578

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : EST:\*

1: em estba:\*

2: em\_esthum:\*

3: em\_estin:\*

4: em\_estmu:\*

5: em\_estov:\*

6: em estpl:\*

7: em estro:\*

8: em htc:\*

9: gb est1:\*

10: gb est2:\*

11: gb\_htc:\*

12: gb\_est3:\*

13: gb\_est4:\*

14: gb\_est5:\*
15: em estfun:\*

16: em estom:\*

17: em\_gss\_hum:\*

18: em\_gss\_inv:\*

19: em\_gss\_pln:\*

20: em gss vrt:\*

21: em\_gss\_fun:\*

22: em\_gss\_mam:\*

23: em\_gss\_mus:\*

24: em\_gss\_pro:\*

25: em\_gss\_rod:\*

26: em\_gss\_phg:\*

27: em\_gss\_vrl:\*

28: gb\_gss1:\*

# 29: gb\_gss2:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

			ઇ				
Res	sult		Query				
	No.	Score	Match	Length	DB	ID	Description
С	1	63.2	6.0	1121	28	BZ578913	BZ578913 msh2_6062
С	2	62.4	5.9	994	28	BZ576614	BZ576614 msh2_5020
	3	62.4	5.9	1291	28	BZ559214	BZ559214 pacs2-164
С	4	62.4	5.9	1318	28	BZ579435	BZ579435 msh2_6354
	5	62.4	5.9	1351	28	BZ574737	BZ574737 msh2_382.
	6	60.8	5.8	788	28	BZ556373	BZ556373 pacs1-60_
	7	60.8	5.8	1312	28	BZ555372	BZ555372 pacs1-60_
С	8	59.4	5.6	1258	28	BZ573154	BZ573154 msh2_2968
	9	55.6	5.3	1200	28	BZ566682	BZ566682 pacs 2-164
	10	51.8	4.9	203	14	Н76739	H76739 17170 Lambd
С	11	51.8	4.9	529	9	AA898980	AA898980 NCM4D10T3
	12	50.4	4.8	714	28	BZ570280	BZ570280 msh2 1291
	13	50.4	4.8	1173	28	BZ552783	$BZ552783 \text{ pacs} \overline{1}-60$
	14	49.6	4.7	678	28	AZ933822	AZ933822 BJ Ba $00\overline{0}$
	15	49.2	4.7	1201	13	BX381961	$BX381961 BX\overline{38}1961$
	16	49	4.7	838	29	CG074421	CG074421 PUJGL44TD
	17	48.8	4.6	1132	28	BZ559201	BZ559201 pacs2-164
C	18	48.2	4.6	510	28	CC139486	CC139486 NDL.19M8.
С	19	48.2	4.6	670	14	CA258067	CA258067 SCCCRT300
С	20	48.2	4.6	782	29	CC867845	CC867845 NDL.52N16
С	21	47.8	4.5	712	13	BX416727	BX416727 BX416727
	22	47.8	4.5	1201	13	BX360624	BX360624 BX360624
С	23	47.2	4.5	1034	28	BZ559094	BZ559094 pacs2-164
	24	47	4.5	534	28	BZ293285	BZ293285 CG0247.r1
	25	47	4.5	1270	28	BZ576677	BZ576677 msh2 505.
С	26	46.6	4.4	601	13	CA144291	CA144291 SCRURT201
С	27	46.6	4.4	615	13	CA100770	CA100770 SCCCCL703
С	28	46.6	4.4	627	13	CA151391	CA151391 SCJFRZ200
С	29	46.6	4.4	672	13	CA096378	CA096378 SCAGCL601.
С	30	46.6	4.4	703	13	BU102676	BU102676 SCCCAD100
С	31	46.6	4.4	703	13	CA064783	CA064783 SCCCAD100
С	32	46.2	4.4	796	28	BZ556455	BZ556455 pacs1-60
С	33	45.6	4.3	896	28	BZ570242	BZ570242 msh2 126.
С	34	45.2	4.3	481	13	CA018544	CA018544 HV08023r
	35	45.2	4.3	606	14	CA211255	CA211255 SCRLAD109
С	36	45.2	4.3	1046	28	AF035994	AF035994 AF035994
С	37	45	4.3	682	14	CA297537	CA297537 SCCCSD1C0
С	38	45	4.3	698	14	CA194718	CA194718 SCRFSB102
	39	45	4.3	1177	28	BZ559202	BZ559202 pacs2-164
С	40	44.8	4.3	580	14	CF649586	CF649586 3530 1 72
C	41	44.8	4.3	837	14	CF243426	CF243426 3530 1 21
	42	44.8	4.3	1201	13	BX340013	BX340013 BX340013
С	43	44.6	4.2	818	13	CA152415	CA152415 SCJFRZ202
С	44	44.6	4.2	885	13	BX425603	BX425603 BX425603
	45	44.6	4.2	1116	28	BZ551082	BZ551082 pacs1-60
					_ 0		54331002 pacs1-60_

OM nucleic - nucleic search, using sw model

May 1, 2004, 14:47:10 ; Search time 4393 Seconds Run on:

(without alignments)

10379.438 Million cell updates/sec

US-09-903-771(1) Title:

Perfect score: 1052

Sequence: 1 tgcagcattgccggtggagc.....cctcttcgggccagtctgaa 1052

(OLIGO NUC Scoring table:

Gapop 60.0 , Gapext 60.0

Searched: 3470272 segs, 21671516995 residues

Word size :

Total number of hits satisfying chosen parameters:

6940544

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : GenEmbl:\*

1: gb ba:\*

2: gb\_htg:\*

3: gb\_in:\*

4: gb om:\*

5: gb ov:\*

6: gb\_pat:\*

7: gb\_ph:\*

8: gb\_pl:\*

9: gb pr:\*

10: gb ro:\*

11: gb sts:\*

12: gb sy:\*

13: gb un:\*

14: gb vi:\*

15: em ba:\*

16: em fun:\*

17: em hum:\*

18: em in:\*

19: em mu:\*

20:

em om:\*

21: em or:\*

22: em ov:\*

23: em pat:\*

24: em\_ph:\*

25: em\_pl:\*

26: em ro:\*

27: em sts:\*

```
28: em_un:*
29: em_vi:*
30: em_htg_hum:*
31: em_htg_inv:*
32: em_htg_other:*
33: em_htg_mus:*
34: em_htg_pln:*
35: em_htg_rod:*
36: em_htg_rod:*
36: em_htg_wam:*
37: em_htg_vrt:*
38: em_sy:*
39: em_htgo_hum:*
40: em_htgo_mus:*
41: em_htgo_other:*
```

왕

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	ult No.	Score	Query Match	Length	DB	ID	Description
	1	1052	100.0	1052	6	AX377471 WO 02/12291	AX377471 Sequence
C	2	1052	100.0	309400	6	AX127153 EP [108790	AX127153 Sequence
C	3	1052	100.0	325651	1	AP005283 GenBank	AP005283 Corynebac
	4	759	72.1	759	6	AX065953 WO 01/00842	AX065953 Sequence
	5	636	60.5	636	6	AX123320 EP	AX123320 Sequence
	6	636	60.5	636	6	BD165437 JF 2002 191370	BD165437 Novel pol
	7	404	38.4	1902	6	AX397915 WO 02/20717	AX397915 Sequence
	8	404	38.4	1902	6	AX398211 wa oz/20793	AX398211 Sequence
	9	353	33.6	353	6	AX377473 WO 02/12291	AX377473 Sequence
	10	142	13.5	1498	6	AX763115 WO 03/40181	AX763115 Sequence
	11	112	10.6	1311	6	AX123323 <b>EP</b>	AX123323 Sequence
	12	112	10.6	1311	6	BD165440 <b>JP</b>	BD165440 Novel pol
С	13	100	9.5	456	6	AX123319 <b>EP</b>	AX123319 Sequence
С	14	100	9.5	456	6	BD165436 <b>J</b>	BD165436 Novel pol
	15	23	2.2	1977	6	AX079001	AX079001 Sequence
С	16	23		305245	1	AE016793	AE016793 Pseudomon
С	17	23		347750	1	AP002998	AP002998 Mesorhizo
C	18	23		349659	1	BX248360	BX248360 Corynebac
	19	22	2.1	2021	1	AF161327	AF161327 Corynebac
	20	22		302007	1	SCO939132	AL939132 Streptomy
	21	22		349659	1	BX248360	BX248360 Corynebac
С	22	21		142133	2	AC135014	AC135014 Felis cat
	23	21		143092	3	CEY17G7B	AL023828 Caenorhab
С	24	21		158014	2	AC092413	AC092413 Felis cat
	25	21		181021	10	AL663031	AL663031 Mouse DNA
	26	21		262339	2	AC110265	AC110265 Mus muscu
	27	21		264291	2	AC104207	AC104207 Mus muscu
	28	21		299050	1	SC0939119	AL939119 Streptomy
	29	21		299550	1	AP005031	AP005031 Streptomy
С	30	21		302070	1	AP005223	AP005223 Corynebac
	31	20	1.9	13391	1	AE012389	AE012389 Xanthomon
С	32	20		123865	2	AC102005	AC102005 Mus muscu
C	33	20	1.9	142780	2	AC118735	AC118735 Mus muscu

OM nucleic - nucleic search, using sw model

Run on: May 1, 2004, 13:53:20; Search time 492 Seconds

(without alignments)

9083.545 Million cell updates/sec

Title: US-09-903-771-1

Perfect score: 1052

Sequence: 1 tgcagcattgccggtggagc.....cctcttcgggccagtctgaa 1052

Scoring table: OLIGO NUC

Gapop 60.0 , Gapext 60.0

Searched: 3373863 seqs, 2124099041 residues

Word size : (

Total number of hits satisfying chosen parameters: 6747726

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database: N Geneseq 29Jan04:\*

1: geneseqn1980s:\*

2: geneseqn1990s:\*

3: geneseqn2000s:\*

4: geneseqn2001as:\*

5: geneseqn2001bs:\*

6: geneseqn2002s:\*

7: geneseqn2003as:\*

8: geneseqn2003bs:\*

9: geneseqn2003cs:\*

10: geneseqn2004s:\*

	ult		% Query				
	No.	Score	Match	Length	DB	ID	Description
	1	1052	100.0	1052	6	ABA91930 WO 02/12291	Aba91930 Corynebac
С	2	1052	100.0	309400	5	AAH68534 <b>EP</b>	Aah68534 C glutami
	3	759	72.1	759	4	AAF71286 Wo 01/00842	Aaf71286 Corynebac
	4	636	60.5	636	5	AAH68201 <i>EP</i>	Aah68201 C glutami
	5	404	38.4	1902	6	ABL40476 WO 02/26799	Ab140476 C. glutam
	6	353	33.6	353	6	ABA9193160 0 2/12291	Aba91931 Corynebac
	7	142	13.5	1498	9	ADD13949 WO 03/40/81	Add13949 C. glutam
	8	112	10.6	858	7	ACA01369 DE 10128510	Aca01369 C. glutam
	9	112	10.6	1311	5	AAH68204 <b>E</b> C	Aah68204 C glutami
C	10	100	9.5	456	5	AAH68200 <b>EP</b>	Aah68200 C glutami
C	11	100	9.5	456	7	ACA01348 <b>DE</b>	Aca01348 C. glutam
	12	23	2.2	1977	5	AAF26417	Aaf26417 Pseudomon

OM nucleic - nucleic search, using sw model

Run on: May 1, 2004, 16:04:30; Search time 97 Seconds

(without alignments)

6018.643 Million cell updates/sec

Title: US-09-903-771-1

Perfect score: 1052

Sequence: 1 tgcagcattgccggtggagc.....cctcttcgggccagtctgaa 1052

Scoring table: OLIGO NUC

Gapop 60.0 , Gapext 60.0

Searched: 682709 seqs, 277475446 residues

Word size: 0

Total number of hits satisfying chosen parameters: 1365418

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : Issued Patents NA:\*

1: /cgn2\_6/ptodata/2/ina/5A COMB.seq:\*

2: /cgn2\_6/ptodata/2/ina/5B\_COMB.seq:\*

3: /cgn2\_6/ptodata/2/ina/6A\_COMB.seq:\*

4: /cgn2\_6/ptodata/2/ina/6B\_COMB.seq:\*

5: /cgn2 6/ptodata/2/ina/PCTUS COMB.seq:\*

6: /cgn2\_6/ptodata/2/ina/backfiles1.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Res	sult No.	Score	% Query Match	Length	DB	ID	Description
	1	. 18	1.7	484	1	US-08-554-586-1	Sequence 1, Appli
	2	18	1.7	536165	4	US-09-214-808-1	Sequence 1, Appli
	3	17	1.6	444	4	US-09-252-991A-15154	Sequence 15154, A
С	4	17	1.6	465	4	US-09-252-991A-14734	Sequence 14734, A
	5	17	1.6	609	4	US-09-252-991A-15483	Sequence 15483, A
	6	17	1.6	621	4	US-09-252 <b>-</b> 991A-15020	Sequence 15020, A
	7	17	1.6	882	4	US-09-134-001C-2496	Sequence 2496, Ap
	8	17	1.6	1083	4	US-09-252-991A-15422	Sequence 15422, A
С	9	17	1.6	1221	4	US-09-489 <b>-</b> 039A-1479	Sequence 1479, Ap
C	10	17	1.6	1263	4	US-09-252-991A-2381	Sequence 2381, Ap
	11	17	1.6	1266	4	US-09-252-991A-14898	Sequence 14898, A
	12	17	1.6	1386	4	US-09-489-039A-4802	Sequence 4802, Ap

OM nucleic - nucleic search, using sw model

Run on: May 1, 2004, 17:28:36; Search time 506 Seconds

(without alignments)

9404.514 Million cell updates/sec

Title: US-09-903-771-1

Perfect score:

Sequence: 1 tgcagcattgccggtggagc.....cctcttcgggccagtctgaa 1052

Scoring table: OLÍGO NUC

Gapop 60.0 , Gapext 60.0

Searched: 2936184 segs, 2261732022 residues

Word size :

Total number of hits satisfying chosen parameters:

5872368

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : Published Applications NA:\*

/cgn2 6/ptodata/1/pubpna/US07 PUBCOMB.seq:\*

/cgn2 6/ptodata/1/pubpna/PCT NEW PUB.seq:\*

3: /cgn2 6/ptodata/1/pubpna/US06 NEW PUB.seq:\*

/cgn2\_6/ptodata/1/pubpna/US06 PUBCOMB.seq:\*

/cgn2 6/ptodata/1/pubpna/US07 NEW PUB.seq:\*

6:

/cgn2 6/ptodata/1/pubpna/PCTUS PUBCOMB.seg:\*

7: /cgn2 6/ptodata/1/pubpna/US08 NEW PUB.seg:\*

8: /cgn2\_6/ptodata/1/pubpna/US08\_PUBCOMB.seq:\*

9: /cgn2 6/ptodata/1/pubpna/US09A PUBCOMB.seq:\*

10: /cgn2 6/ptodata/1/pubpna/US09B PUBCOMB.seq:\*

11: /cgn2\_6/ptodata/1/pubpna/US09C PUBCOMB.seq:\*

12: /cgn2 6/ptodata/1/pubpna/US09 NEW PUB.seg:\*

13: /cgn2 6/ptodata/1/pubpna/US09 NEW PUB.seq2:\*

14: /cgn2 6/ptodata/1/pubpna/US10A PUBCOMB.seq:\*

15: /cgn2 6/ptodata/1/pubpna/US10B\_PUBCOMB.seq:\*

16: /cgn2 6/ptodata/1/pubpna/US10C PUBCOMB.seq:\*

17: /cgn2\_6/ptodata/1/pubpna/US10\_NEW PUB.seq:\*

/cgn2\_6/ptodata/1/pubpna/US60\_NEW\_PUB.seq:\* 18:

/cgn2 6/ptodata/1/pubpna/US60 PUBCOMB.seg:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Use AP 2002/0197605 2002/018268"
USEAP LUXS UNION SUMMARIES 용 Result Query No. Match Length DB Score Description ID 1 100.0 US-09-903-771-1 1052 1052 13 Sequence 322789, 2 1052 100.0 3309400 US-09-738-626-1 С Sequence 1, Appli 3 US-09-738-626-3236 636 60.5 636 9 Sequence 3236, Ap 4 404 38.4 1902 9 US-09-824-551-1. Sequence 1, Appli 5 353 33.6 353 13 US-09-903-771-3 Sequence 3, Appli 6 112 10.6 1311 9 US-09-738-626-3239 Sequence 3239, Ap 7 100 9.5 456 9 US-09-738-626-3235 Sequence 3235, Ap 8 21 2.0 3138 15 US-10-156-761-2538 Sequence 2538, Ap 9 21 2.0 9025608 15 US-10-156-761-1 Sequence 1, Appli 10 20 1.9 20 13 US-09-903-771-4 Sequence 4, Appli 11 20 1.9 20 С 13 US-09-903-771-5 Sequence 5, Appli 12 1.7 18 309 14 US-10-040-739-958 Sequence 958, App С 13 18 1.7 404 13 US-10-027-632-183550 Sequence 183550, С 14 18 1.7 404 13 US-10-027-632-183551 Sequence 183551, 15 С 18 1.7 40416 US-10-027-632-183550 Sequence 183550, 16 18 1.7 404 16 US-10-027-632-183551 Sequence 183551, 17 18 1.7 439 9 US-09-867-701-5576 Sequence 5576, Ap 18 18 1.7 C 461 15 US-10-171-581-314 Sequence 314, App 19 1.7 18 584 13 US-10-425-114-9282 Sequence 9282, Ap 20 18 1.7 702 17 US-10-404-460-189 Sequence 189, App 21 1.7 С 18 806 13 US-10-027-632-170738 Sequence 170738, С 22 18 1.7 806 13 US-10-027-632-170739 Sequence 170739, 23 18 C 1.7 806 16 US-10-027-632-170738 Sequence 170738, 24 18 1.7 806 16 US-10-027-632-170739 Sequence 170739, 25 909 18 1.7 13 US-10-424-599-60392 Sequence 60392, A 26 18 1.7 973 13 US-10-412-699B-983 Sequence 983, App 27 18 1.7 973 16 US-10-374-780A-482 Sequence 482, App 28 18 1.7 1158 15 US-10-156-761-1525 Sequence 1525, Ap 29 С 18 1.7 1778 13 US-10-424-599-40005 Sequence 40005, A 30 18 1.7 3154 14 US-10-044-090-38 Sequence 38, Appl 31 18 1.7 81684 13 US-10-087-192-145 Sequence 145, App 32 18 1.7 536165 10 US-09-939-964-1 Sequence 1, Appli 33 1.7 9025608 18 15 US-10-156-761-1 Sequence 1, Appli 34 17 1.6 178 US-09-864-761-23453 Sequence 23453, A 35 17 1.6 339 16 US-10-062-674-1167 Sequence 1167, Ap 36 17 1.6 342 11 US-09-864-408A-1285 Sequence 1285, Ap 37 17 1.6 401 16 US-10-062-674-1250 Sequence 1250, Ap 38 17 1.6 448 13 US-10-424-599-138358 Sequence 138358, 39 17 1.6 491 9 US-09-867-701-620 Sequence 620, App 40 17 1.6 517 13 US-10-027-632-6974 Sequence 6974, Ap 41 17 1.6 517 16 US-10-027-632-6974 Sequence 6974, Ap 42 17 1.6 528 9 US-09-864-761-6719 Sequence 6719, Ap 43 17 1.6 568 15 US-10-029-386-1655 Sequence 1655, Ap 44 17 1.6 676 13 US-10-027-632-207363 Sequence 207363, 4'5 17 1.6 676 16 US-10-027-632-207363 Sequence 207363,

ALIGNMENTS

OM nucleic - nucleic search, using sw model

Run on: May 1, 2004, 15:55:45; Search time 3220 Seconds

(without alignments)

9756.216 Million cell updates/sec

Title: US-09-903-771-1

Perfect score: 1052

Sequence: 1 tgcagcattgccggtggagc.....cctcttcgggccagtctgaa 1052

Scoring table: OLIGO NUC

Gapop 60.0 , Gapext 60.0

Searched: 27513289 seqs, 14931090276 residues

Word size : 0

Total number of hits satisfying chosen parameters: 55026578

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : EST:\*

1: em\_estba:\*

2: em esthum:\*

3: em\_estin:\*

4: em\_estmu:\*

5: em\_estov:\*

6: em\_estpl:\*

7: em\_estro:\*

8: em\_htc:\*

9: gb est1:\*

10: gb\_est2:\*

11: gb\_htc:\*

12: gb\_est3:\*

13: gb\_est4:\*

14: gb\_est5:\*
15: em\_estfun:\*

16: em estom:\*

17: em\_gss\_hum:\*

18: em\_gss\_inv:\*

19: em\_gss\_pln:\*

20: em gss vrt:\*

21: em\_gss fun:\*

22: em\_gss\_mam:\*

23: em\_gss\_mus:\*

24: em\_gss\_pro:\*

25: em\_gss\_rod:\*

26: em\_gss\_phg:\*

27: em\_gss\_vrl:\*

28: gb\_gss1:\*

# 29: gb\_gss2:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

			_			SUMMAR.	LES
_			용				
Res	sult	_	Query				
	No.	Score	Match	Length	DB	ID	Description
	1	21	2.0	198	12	BM290466	BM290466 EST577000
	2	21	2.0	354	13	BY034863	BY034863 BY034863
С	3	21	2.0	444	13	BY590132	BY590132 BY590132
	4	21	2.0	487	12	BM291259	BM291259 EST577793
	5	21	2.0	748	12	BM292614	BM292614 EST575156
	6	21	2.0	1087	28	CC186660	CC186660 CH261-144
С	7	20	1.9	273	10	BF716978	BF716978 NcEST3a19
C	8	20	1.9	368	10	BB868867	BB868867 BB868867
C	9	20	1.9	417	14	CF838330	CF838330 UCRCS03 0
C	10	20	1.9	418	14	CF838670	CF838670 UCRCS03 0
_	11	20	1.9	463	28	BH105940	BH105940 RPCI-24-4
	12	20	1.9	547	29	CG829255	CG829255 ZMMBBb035
С	13	20	1.9	565	12	BM624357	BM624357 170006874
C	14	20	1.9	568	12	BM610097	BM610097 170006871
•	15	20	1.9	659	14	CB267786	CB267786 1006692 H
	16	20	1.9	971	12	BG701515	BG701515 602682751
	17	20	1.9	1090	29	CNS05R83	AL350220 Tetraodon
	18	19	1.8	57	14	CF297957	. CF297957 7LEAF01
	19	19	1.8	205	13	BY318076	BY318076 BY318076
	20	19	1.8	239	14	CF903433	CF903433 A0408G01-
	21	19	1.8	243	13	BY336988	BY336988 BY336988
·C	22	19	1.8	308	9	AA363438	AA363438 EST73321
_	23	19	1.8	309	10	BB120073	BB120073 BB120073
	24	19	1.8	331	9	AA375611	
	25	19	1.8	331	13	BY343293	AA375611 EST88182
	26	19	1.8	333	13	BY315425	BY343293 BY343293
	27	19	1.8	336	13	BY319536	BY315425 BY315425
	28	19	1.8	336	13	BY337584	BY319536 BY319536
	29	19	1.8	338	13	BY145121	BY337584 BY337584 BY145121 BY145121
	30	19	1.8	339	14	CB076708	
	31	19	1.8	340	13	BY019055	CB076708 hj43e03.g BY019055 BY019055
	32	19	1.8	341	13	BY074549	BY074549 BY074549
	33	19	1.8	342	13	BY318539	BY318539 BY318539
	34	19	1.8	342	13	BY319902	
	35	19	1.8	342	13	BY338237	BY319902 BY319902
	36	19	1.8	342	13	BY791814	BY338237 BY338237
	37	19	1.8	346	13	BY317192	BY791814 BY791814
	38	19	1.8	347	13	BY337231	BY317192 BY317192
	39	19	1.8	348	13	BY070017	BY337231 BY337231
	40	19	1.8	350	13	BY316095	BY070017 BY070017 BY316095 BY316095
	41	19	1.8	351	13	BY005304	
	42	19	1.8	351	13	BY236832	BY005304 BY005304
	43	19	1.8	351	13	BY337404	BY236832 BY236832
	44	19	1.8	352	13	BY304931	BY337404 BY337404
	45	19	1.8	352	13	BY786914	BY304931 BY304931
	- 🗸	1.7	1.0	J J Z	10	D1/00314	BY786914 BY786914

OM protein - nucleic search, using frame plus p2n model May 1, 2004, 18:24:18; Search time 3728 Seconds Run on: (without alignments) 2464.786 Million cell updates/sec US-09-903-771**f**2 Title: Perfect score: 1030 Sequence: 1 MIRVLLADDHEIVRLGLRAV......KLGVRSRTSAVAAAREQGLL 212 Scoring table: BLOSUM62 Xgapop 10.0 , Xgapext 0.5 Ygapop 10.0 , Ygapext 0.5 Fgapop 6.0 , Fgapext 7.0 Delop 6.0 , Delext 7.0 Searched: 3470272 segs, 21671516995 residues Total number of hits satisfying chosen parameters: 6940544 Minimum DB seq length: 0 Maximum DB seq length: 2000000000 Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries Command line parameters: -MODEL=frame+ p2n.model -DEV=xlh Q=/cgn2\_1/USPTO\_spool/US09903771/runat\_30042004 082630 17729/app query.fasta 1.3 -DB=GenEmbl -QFMT=fastap -SUFFIX=rge -MINMATCH=0.1 -LOOPCL=0 -LOOPEXT=0 -UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45 -DOCALIGN=200 -THR SCORE=pct -THR MAX=100 -THR MIN=0 -ALIGN=15 -MODE=LOCAL -OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=2000000000 -USER-US09903771 @CGN 1 1 3508 @runat 30042004 082630 17729 -NCPU=6 -ICPU=3 -NO MMAP -LARGEQUERY -NEG SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG -DEV TIMEOUT=120 -WARN TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6 -FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7 Database : GenEmbl:\* 1: gb ba:\* 2: gb htg:\* 3: gb in:\* 4: gb om:\* 5: gb ov:\* 6: gb pat:\* 7: gb\_ph:\* 8: gb\_pl:\* 9: gb\_pr:\*

10: gb ro:\*

```
11: gb sts:*
    gb_sy:*
12:
13:
    gb_un:*
14: gb vi:*
15:
    em ba:*
16:
    em fun:*
17:
    em hum:*
18:
    em in:*
19:
    em mu:*
20:
    em_om:*
21:
    em_or:*
22:
    em ov:*
23:
    em_pat:*
24:
    em_ph:*
25:
    em_pl:*
26:
    em ro:*
27:
    em_sts:*
28:
    em_un:*
29:
    em vi:*
30:
    em_htg hum: *
31:
    em_htg_inv:*
32:
    em htg other:*
33:
    em htg mus:*
34:
    em_htg_pln:*
35:
    em_htg_rod:*
36:
    em htg mam: *
37:
    em_htg_vrt:*
38:
    em_sy:*
39:
    em_htgo_hum:*
    em_htgo_mus:*
40:
    em_htgo_other:*
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	ult No.	Score	% Query Match	Length	DB	ID	Description	
	1	1030	100.0	636	6	AX123320 Ef 1108790	AX123320 Sequ	
	2 3	1030 1030	100.0	636 759	6 6	BD165437 Jf 2002191370 AX065953 WO 01/00842	BD165437 Nove AX065953 Sequ	el pol
	4	1030	100.0	1052	6	AX377471 WO 02/12291	AX377471 Sequ	
C	5	1030	100.0	309400	6	AX127153 EP	AX127153 Sequ	
С	. 6	1030	100.0	325651	1	AP005283 GenBank	AP005283 Cory	nebac
С	7	994	96.5	302070	1	AP005223	AP005223 Cory	
С	8	914	88.7	349659	1	BX248360	BX248360 Cory	
	9	610	59.2	630	6	AX122284	·	ience
	10	610	59.2	630	6	BD164401		el pol
	11	610	59.2	753	6	AX065957		ience
	12	610	59.2	760	6	AX763127		ience
	13	610	59.2	760	6	AX771859		ience
	14	610	59.2	1032	6	AX376724	AX376724 Sequ	
С	15	610	59.2	337200	1	AP005280	AP005280 Cory	
С	16	610	59.2	349980	6	AX127149		ience

OM protein - nucleic search, using frame plus p2n model Run on: May 1, 2004, 18:22:31; Search time 387 Seconds (without alignments) 2327.178 Million cell updates/sec Title: US-09-903-771-2 Perfect score: 1030 Sequence: 1 MIRVLLADDHEIVRLGLRAV......KLGVRSRTSAVAAAREQGLL 212 Scoring table: BLOSUM62 Xgapop 10.0 , Xgapext 0.5 Ygapop 10.0 , Ygapext 0.5 Fgapop 6.0, Fgapext 7.0 Delop 6.0 , Delext 7.0 3373863 seqs, 2124099041 residues Searched: Total number of hits satisfying chosen parameters: 6747726 Minimum DB seq length: 0 Maximum DB seq length: 2000000000 Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries Command line parameters: -MODEL=frame+ p2n.model -DEV=xlh Q=/cgn2 1/USPTO spool/US09903771/runat 30042004 082630 17719/app query.fasta 1.3 -DB=N\_Geneseq 29Jan04 -QFMT=fastap -SUFFIX=rng -MINMATCH=0.1 -LOOPCL=0 -LOOPEXT=0 -UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45 -DOCALIGN=200 -THR SCORE=pct -THR MAX=100 -THR MIN=0 -ALIGN=15 -MODE=LOCAL -OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=2000000000 -USER-US09903771 @CGN 1 1 470 @runat 30042004 082630 17719 -NCPU=6 -ICPU=3 -NO MMAP -LARGEQUERY -NEG SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG -DEV TIMEOUT=120 -WARN TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6 -FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7 N\_Geneseq\_29Jan04:\* Database : 1: geneseqn1980s:\* 2: geneseqn1990s:\* 3: genesegn2000s:\* 4: geneseqn2001as:\* 5: geneseqn2001bs:\* 6: geneseqn2002s:\* 7: geneseqn2003as:\* 8: geneseqn2003bs:\*

9: geneseqn2003cs:\*
10: geneseqn2004s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

D =	14-		8				
кез	sult No.	Score	Query Match	Length	DB	ID	Description
	1	1030	100.0	636	5	AAH68201 <b>E</b>	Aah68201 C glutami
	2	1030	100.0	759	4	AAF71286 WO 01/0842	Aaf71286 Corynebac
	3	1030	100.0	1052	6	ABA91930 WO 02/12291	Aba91930 Corynebac
С	4	1030		309400	5	AAH68534 <b>E</b> 🖍	Aah68534 C glutami
	5	610	59.2	630	5	AAH67165	Aah67165 C glutami
	6	610	59.2	753	4	AAF71288	Aaf71288 Corynebac
	7	610	59.2	760	9	ADD13670	Add13670 C. glutam
	8	610	59.2	760	9	ADD13961	Add13961 C. glutam
	9	610	59.2	1032	6	ABA95154	Aba95154 C. glutam
C	10	610		349980	5	AAH68531	Aah68531 C glutami
C	11	610		349980	5	AAH68530	Aah68530 C glutami
	12	577	56.0	353	6	ABA91931	Aba91931 Corynebac
	13	525	51.0	12531	4	AAS59530	Aas59530 Propionib
	14	525	51.0	12531	7	ACF64459	Acf64459 Propionib
	15	390.5	37.9	23474	4	AAS59511	Aas59511 Propionib
	16	390.5	37.9	23474,	7	ACF64440	Acf64440 Propionib
	17	387	37.6	632	6	ABK77044	Abk77044 Bacillus
	18	379.5	36.8	38726	4	AAS59513	Aas59513 Propionib
	19	379.5	36.8	38726	7	ACF64442	Acf64442 Propionib
С	20	375.5	36.5	88421	6	AAL40781	Aal40781 88421nt g
С	21	373.5	36.3	47988	9	ADE86070	Ade86070 Streptomy
	22	358.5	34.8	2538	2	AAX21398	Aax21398 Central f
	23	350.5	34.0	10391	2	AAX13070	Aax13070 Enterococ
	24	350.5	34.0	10391	6	ABS98865	Abs98865 Enterococ
	25	344.5		110000	6	ABQ69245_10	Continuation (11 o
	26	344.5	33.4	110000	6	ABQ67197_09	Continuation (10 o
C	27	343.5	33.3	5944	4	AAS59604	Aas59604 Propionib
С	28	343.5	33.3	5944	7	ACF64533	Acf64533 Propionib
	29	343.5		110000	6	ABA03041_10	Continuation (11 o
С	30	342	33.2	1373	4	AAS59700	Aas59700 Propionib
C	31	342	33.2	1373	7	ACF64629	Acf64629 Propionib
	32	342	33.2	66788	4	AAS59515	Aas59515 Propionib
	33	342	33.2	66788	7	ACF64444	Acf64444 Propionib
	34	341.5	33.2	639	9	ADC93578	Adc93578 E. faeciu
	35	341	33.1	84707	6	ABQ67196_6	Continuation (7 of
	36	341		110000	6	ABQ67196_5	Continuation (6 of
С	37	341		110000	6	ABQ69245_26	Continuation (27 o
С	38	341		110000	6	ABA03041_25	Continuation (26 o
	39	340.5	33.1	1251	6	ABQ69042	Abq69042 Listeria
	40	340.5	33.1	4403	6	ABQ70942	Abq70942 Listeria
С	41	338.5	32.9	17083	7	ABZ58812	Abz58812 S. cinnam
	42	330.5	32.1	648	8	ADB10145	Adb10145 Alloiococ
С	43	330.5		110000	8	ADB12064_12	Continuation (13 o
С	44	330.5		110000	8	ADB12064_13	Continuation (14 o
	45	328.5	31.9	648	6	ABN92436	Abn92436 Staphyloc

OM protein - nucleic search, using frame plus p2n model

Run on: May 1, 2004, 19:44:12; Search time 78 Seconds

(without alignments)

1508.328 Million cell updates/sec

Title: US-09-903-771-2

Perfect score: 1030

Sequence: 1 MIRVLLADDHEIVRLGLRAV......KLGVRSRTSAVAAAREOGLL 212

Scoring table: BLOSUM62

Xgapop 10.0 , Xgapext 0.5
Ygapop 10.0 , Ygapext 0.5
Fgapop 6.0 , Fgapext 7.0
Delop 6.0 , Delext 7.0

Searched: 682709 seqs, 277475446 residues

Total number of hits satisfying chosen parameters: 1365418

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Command line parameters:

-MODEL=frame+\_p2n.model -DEV=xlh

Q=/cgn2\_1/USPTO\_spool/US09903771/runat\_30042004\_082631\_17783/app\_query.fasta\_1.3

-DB=Issued\_Patents\_NA -QFMT=fastap -SUFFIX=rni -MINMATCH=0.1 -LOOPCL=0

-LOOPEXT=0 -UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi

-LIST=45 -DOCALIGN=200 -THR SCORE=pct -THR MAX=100 -THR MIN=0 -ALIGN=15

-MODE=LOCAL -OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=2000000000

-USER=US09903771 @CGN\_1\_1\_56 @runat\_30042004\_082631\_17783 -NCPU=6 -ICPU=3

-NO MMAP -LARGEQUERY -NEG SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG

-DEV TIMEOUT=120 -WARN TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6

-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7

Database : Issued Patents NA:\*

1: /cgn2\_6/ptodata/2/ina/5A\_COMB.seq:\*

2: /cgn2 6/ptodata/2/ina/5B COMB.seg:\*

3: /cgn2\_6/ptodata/2/ina/6A\_COMB.seq:\*

4: /cgn2\_6/ptodata/2/ina/6B COMB.seq:\*

5: /cgn2 6/ptodata/2/ina/PCTUS COMB.seq:\*

6: /cgn2 6/ptodata/2/ina/backfiles1.seg:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

of Result Query No. Score Match Length DB ID Description \_\_\_\_\_\_ Sequence 1, Appli Sequence 1, Appli Sequence 3, Appli 610 59.2 1032 4 US-09-897-537A-1 36.5 5045 3 US-09-390-721-1 2 376 5045 3 US-09-390-721-3 3 376 36.5 2588 2 US-08-796-414B-6 Sequence 6, Appli 4 358.5 34.8 Sequence 1163, Ap 648 4 5 350.5 34.0 US-09-134-000C-1163 6 341.5 33.2 639 4 US-09-107-532A-3205 Sequence 3205, Ap 7 331.5 32.2 810 4 US-09-252-991A-3647 Sequence 3647, Ap 8 331.5 32.2 879 4 US-09-252-991A-3602 Sequence 3602, Ap 9 331.5 32.2 1632 4 Sequence 3859, Ap US-09-252-991A-3859 С 328.5 31.9 648 4 10 US-09-134-001C-1899 Sequence 1899, Ap 11 328 31.8 1830121 4 US-09-557-884-1 Sequence 1, Appli С Sequence 1, Appli 12 328 31.8 1830121 4 US-09-643-990A-1 С Sequence 1, Appli 13 323.5 31.4 900 2 US-08-771-784-1 900 3 323.5 31.4 14 US-09-076-756-1 Sequence 1, Appli 15 323.5 31.4 3334 3 US-09-255-984-1 Sequence 1, Appli Sequence 438, App 16 308.5 30.0 1419 4 US-08-956-171E-438 17 308 29.9 1666 1 US-08-848-932-1 Sequence 1, Appli 18 308 29.9 1666 2 US-09-008-180-1 Sequence 1, Appli 29.9 11887 4 US-08-961-527-146 19 308 Sequence 146, App 20 306.5 29.8 702 4 US-09-489-039A-3142 Sequence 3142, Ap 323 4 US-09-897-537A-3 21 306 29.7 Sequence 3, Appli 22 29.7 4403765 3 US-09-103-840A-2 306 С Sequence 2, Appli 23 306 29.7 4411529 3 US-09-103-840A-1 Sequence 1, Appli 24 305.5 29.7 7965 4 US-08-956-171E-321 Sequence 321, App 25 302.5 29.4 705 4 US-09-543-681A-2052 Sequence 2052, Ap 26 295 28.6 840 4 US-09-651-656-106 Sequence 106, App 840 4 27 295 28.6 US-09-650-855-106 Sequence 106, App 28 294.5 28.6 636 4 US-09-134-001C-976 Sequence 976, App 29 292 28.3 5014 3 US-09-381-862-3 С Sequence 3, Appli 30 288 28.0 660 4 US-09-543-681A-3866 Sequence 3866, Ap 31 287.5 27.9 678 4 US-09-252-991A-794 Sequence 794, App 32 287.5 27.9 2577 4 US-09-252-991A-828 С Sequence 828, App 284.5 27.6 777 4 33 US-09-540-236-1792 Sequence 1792, Ap 34 284.5 27.6 63563 4 US-09-596-002-33 Sequence 33, Appl 35 280 27.2 711 4 US-09-489-039A-7022 Sequence 7022, Ap 36 268.5 26.1 642 2 US-09-009-218-9 Sequence 9, Appli 37 263.5 25.6 642 1 US-08-761-258-9 Sequence 9, Appli 38 263.5 25.6 642 2 US-09-009-218-7 Sequence 7, Appli 39 263.5 25.6 642 2 US-08-977-306-9 Sequence 9, Appli 40 262.5 25.5 642 1 US-08-761-258-4 Sequence 4, Appli 642 2 Sequence 4, Appli 41 262.5 25.5 US-08-977-306-4 42 262 25.4 663 4 US-09-252-991A-14645 Sequence 14645, A 43 262 25.4 С 2769 4 US-09-252-991A-15111 Sequence 15111, A 261.5 44 25.4 642 2 US-09-009-218-3 Sequence 3, Appli 45 260.5 25.3 771 4 US-09-328-352-1304 Sequence 1304, Ap

### ALIGNMENTS

RESULT 1 US-09-897-537A-1

<sup>;</sup> Sequence 1, Application US/09897537A

OM protein - nucleic search, using frame plus p2n model Run on: May 1, 2004, 20:56:22; Search time 406 Seconds (without alignments) 2362.006 Million cell updates/sec Title: US-09-903-771-2 Perfect score: 1030 Sequence: 1 MIRVLLADDHEIVRLGLRAV......KLGVRSRTSAVAAAREQGLL 212 Scoring table: BLOSUM62 Xgapop 10.0 , Xgapext 0.5 Ygapop 10.0 , Ygapext Fgapop 6.0 , Fgapext 7.0 Delop 6.0 , Delext 7.0 Searched: 2936184 seqs, 2261732022 residues Total number of hits satisfying chosen parameters: 5872368 Minimum DB seq length: 0 Maximum DB seq length: 2000000000 Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries Command line parameters: -MODEL=frame+ p2n.model -DEV=x1h Q=/cgn2 1/USPTO spool/US09903771/runat 30042004 082632 17833/app query.fasta 1.3 -DB=Published Applications NA -QFMT=fastap -SUFFIX=rnpb -MINMATCH=0.1 -LOOPCL=0 -LOOPEXT=0 -UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45 -DOCALIGN=200 -THR SCORE=pct -THR MAX=100 -THR\_MIN=0 -ALIGN=15 -MODE=LOCAL -OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=2000000000 -USER=US09903771 @CGN 1 1 221 @runat 30042004 082632 17833 -NCPU=6 -ICPU=3 -NO MMAP -LARGEQUERY -NEG SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG -DEV TIMEOUT=120 -WARN TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6 -FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7 Database : Published Applications NA:\* 1: /cgn2 6/ptodata/1/pubpna/US07 PUBCOMB.seq:\* /cgn2 6/ptodata/1/pubpna/PCT NEW PUB.seq:\* /cgn2 6/ptodata/1/pubpna/US06 NEW PUB.seg:\* 4: /cgn2 6/ptodata/1/pubpna/US06 PUBCOMB.seq:\* 5: /cgn2 6/ptodata/1/pubpna/US07 NEW PUB.seg:\* 6: /cgn2\_6/ptodata/1/pubpna/PCTUS PUBCOMB.seq:\* 7: /cgn2 6/ptodata/1/pubpna/US08\_NEW PUB.seq:\* /cgn2\_6/ptodata/1/pubpna/US08\_PUBCOMB.seq:\* 9: /cgn2 6/ptodata/1/pubpna/US09A PUBCOMB.seg:\* 10: /cgn2\_6/ptodata/1/pubpna/US09B PUBCOMB.seq:\*

11: /cgn2\_6/ptodata/1/pubpna/US09C PUBCOMB.seq:\*

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12: /cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
13: /cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq2:*
14: /cgn2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
15: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
16: /cgn2_6/ptodata/1/pubpna/US10C_PUBCOMB.seq:*
17: /cgn2_6/ptodata/1/pubpna/US10_NEW_PUB.seq:*
18: /cgn2_6/ptodata/1/pubpna/US60_NEW_PUB.seq:*
19: /cgn2_6/ptodata/1/pubpna/US60_PUBCOMB.seq:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Das	14		* <b>↑</b>				
Res	Sult No.	Saoro	Query	Length	מת	TD	Daggarinti
	NO.	Score	Match	Length		ID	Description
	1	1030	100.0	636	9	US-09-738-626-3236	Sequence 3236, Ap
	2	1030	100.0	1052	13	US-09-903-771-1	Sequence 322789,
С	3	1030		3309400	9	US-09-738-626-1	Sequence 1, Appli
	4	610	59.2		9	US-09-738-626-2200	Sequence 2200, Ap
	5	610	59.2	1032	10	US-09-867-537A-1	Sequence 1, Appli
	6	577	56.0	353	13	US-09-903-771-3	Sequence 3, Appli
	7	409.5	39.8	669	15	US-10-156-761-6649	Sequence 6649, Ap
С	8	409.5	39.8	9025608	15		Sequence 1, Appli
	9	398	38.6	660	15	US-10-156-761-7049	Sequence 7049, Ap
	10	389.5	37.8	744	15	US-10-156-761-5052	Sequence 5052, Ap
	11	389.5	37.8	9025608	15	5 US-10-156-761-1	Sequence 1, Appli
	12	388	37.7	669	15	US-10-156-761-4665	Sequence 4665, Ap
	13	387	37.6	632	9	US-09-974-300-4335	Sequence 4335, Ap
	14	385	37.4	681	15	US-10-156-761-5587	Sequence 5587, Ap
	15	381.5	37.0	639	15	US-10-156-761-6454	Sequence 6454, Ap
	16	376	36.5	705	15	US-10-156-761-919	Sequence 919, App
C	17	375.5	36.5	88421	9	US-09-976-059-1	Sequence 1, Appli
	18	373.5	36.3	681	16	US-10-402-842 <b>-</b> 52	Sequence 52, Appl
С	19	373.5	36.3	47988	16	US-10-402-842-1	Sequence 1, Appli
	20	368.5	35.8	663	15	US-10-156-761-1453	Sequence 1453, Ap
	21	365.5	35.5	717	15	US-10-156-761-5606	Sequence 5606, Ap
	22	360	35.0	639	15	US-10-156-761-2864	Sequence 2864, Ap
	23	356.5	34.6	672	15	US-10-156-761-4521	Sequence 4521, Ap
	24	354.5	34.4	672	15	US-10-156-761-4519	Sequence 4519, Ap
	25	350.5	34.0	10391	9	US-09-070-927A-133	Sequence 133, App
	26	344.5		1163020	16	5 US-10-398-221-10	Sequence 10, Appl
	27	344.5		3011208	16	US-10-398-221-2058	Sequence 2058, Ap
	28	341		684707	16	US-10-398-221-9	Sequence 9, Appli
С	29	341		3011208	16		Sequence 2058, Ap
	30	340.5	33.1	1251	16	US-10-398-221-1855	Sequence 1855, Ap
	31	340.5	33.1	4403	16	US-10 <b>-</b> 398-221-3755	Sequence 3755, Ap
	32	338	32.8	669	15	US-10-156-761-1976	Sequence 1976, Ap
	33	338	32.8	681	15	US-10-156-761-2425	Sequence 2425, Ap
	34	335.5	32.6	657	15	US-10-156-761-4359	Sequence 4359, Ap
	35	333.5	32.4	648	15	US-10-156-761-4438	Sequence 4438, Ap
	36	333.5	32.4	681	15	US-10 <b>-</b> 156-761-6016	Sequence 6016, Ap
	37	328.5	31.9	612	15	US-10-156-761-3119	Sequence 3119, Ap
С	38	328	31.8	1830121	15		Sequence 1, Appli
С	39	328	31.8	1830121	16	US-10-329-670-1	Sequence 1, Appli

OM protein - nucleic search, using frame plus p2n model Run on: May 1, 2004, 19:32:57; Search time 2496 Seconds (without alignments) 2536.371 Million cell updates/sec Title: US-09-903-771-2 Perfect score: 1030 Sequence: 1 MIRVLLADDHEIVRLGLRAV......KLGVRSRTSAVAAAREQGLL 212 Scoring table: BLOSUM62 Xgapop 10.0 , Xgapext 0.5 Ygapop 10.0 , Ygapext 0.5 Fgapop 6.0 , Fgapext 7.0 Delop 6.0 , Delext 7.0 Searched: 27513289 seqs, 14931090276 residues Total number of hits satisfying chosen parameters: 55026578 Minimum DB seq length: 0 Maximum DB seq length: 2000000000 Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries Command line parameters: -MODEL=frame+ p2n.model -DEV=xlh Q=/cgn2 1/USPTO\_spool/US09903771/runat\_30042004\_082630\_17758/app\_query.fasta\_1.3 -DB=EST -QFMT=fastap -SUFFIX=rst -MINMATCH=0.1 -LOOPCL=0 -LOOPEXT=0 -UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45 -DOCALIGN=200 -THR\_SCORE=pct -THR MAX=100 -THR MIN=0 -ALIGN=15 -MODE=LOCAL -OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=2000000000 -USER-US09903771 @CGN 1 1 2810 @runat 30042004 082630 17758 -NCPU=6 -ICPU=3 -NO MMAP -LARGEQUERY -NEG SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG -DEV TIMEOUT=120 -WARN TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6 -FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7 Database : EST:\* 1: em estba:\* 2: em\_esthum:\* 3: em estin:\* 4: em estmu:\* 5: em estov:\* 6: em estpl:\* 7: em estro:\* 8: em htc:\* 9: gb est1:\* 10: gb est2:\*

11: gb htc:\*

```
12: gb est3:*
13:
     gb est4:*
14:
    gb est5:*
15:
    em_estfun:*
16:
    em estom:*
17:
     em gss hum:*
18:
     em_gss_inv:*
19:
     em_gss_pln:*
20:
     em_gss_vrt:*
21:
     em_gss_fun:*
22:
    em_gss_mam:*
23:
    em_gss_mus:*
24:
     em_gss_pro:*
25:
     em_gss_rod:*
26:
     em_gss_phg:*
     em gss vrl:*
27:
     gb_gss1:*
28:
29:
     gb_gss2:*
```

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result No.		Score	Query Match	Length	DR	ID	Description
_						- <b></b>	Description
С		328.5	31.9	782	29	CC867845	CC867845 NDL.52N16
С		296.5	28.8	1258	28	BZ573154	BZ573154 msh2 2968
	3	258	25.0	534	28	BZ293285	$BZ293285 CG02\overline{47.r1}$
С	4	226.5	22.0	510	28	CC139486	CC139486 NDL.19M8.
	5	226.5	22.0	609	10	BF637659	BF637659 NF041B10P
	6	223	21.7	639	10	BF637779	BF637779 NF041E11P
С	7	218.5	21.2	820	28	BZ559345	BZ559345 pacs2-164
С	8	217.5	21.1	795	28	BZ574576	BZ574576 msh2 3734
C	9	204	19.8	1048	28	BZ561394	$BZ561394 \text{ pacs} \overline{2}-164$
	10	200.5	19.5	1363	28	BZ572628	BZ572628 msh2 2725
С	11	197.5	19.2	1286	28	BZ575802	BZ575802 msh2 4633
	12	194.5	18.9	1053	28	BZ567061	BZ567061 pacs2-164
	13	192.5	18.7	1010	28	BZ679460	BZ679460 PUBDJ52TD
	14	188	18.3	1132	28	BZ559201	BZ559201 pacs2-164
	15	184	17.9	931	28	BZ568400	BZ568400 pacs2-164
	16	182.5	17.7	1186	28	BZ550497	BZ550497 pacs1-60
	17	181.5	17.6	1116	28	BZ551082	BZ551082 pacs1-60
С	18	179	17.4	890	28	BZ556529	BZ556529 pacs1-60
	19	178.5	17.3	668	28	BZ548552	BZ548552 pacs1-60
	20	174.5	16.9	1173	28	BZ568225	BZ568225 pacs2-164
	21	173.5	16.8	1270	28	BZ576677	BZ576677 msh2 505.
С	22	169	16.4	782	28	AZ934050	AZ934050 BJ Ba000
	23	169	16.4	805	28	ВН399199	BH399199 AG-ND-175
	24	168	16.3	466	14	CD143606	CD143606 MG1-0086T
	25	167	16.2	1144	28	BZ560680	BZ560680 pacs2-164
С	26	166.5	16.2	994	28	BZ576614	BZ576614 msh2 5020
	27	165.5	16.1	788	28	BZ556373	BZ556373 pacs1-60
	28	164.5	16.0	578	29	CNS07GQ1	AL610075 Anopheles
	29	163	15.8	826	28	BZ573644	BZ573644 msh2 3292